

Applicants: Hamilton et al.
Serial No.: 09/560,224
Filing Date: April 28, 2000
Docket No.: ZIL-300-1P-1C

REMARKS

Reconsideration and allowance is respectfully requested.

Before entry of this amendment, claims 16-17 and 19-38 were pending. In the Office Action, claims 16-17 and 19-38 were rejected. In the present amendment, claim 16 is amended. After entry of the amendment, claims 16-17 and 19-38 are pending.

I. Claims 16-17 and 19-38

Claims 16-17 and 19-38 are rejected under 35 U.S.C. § 102(e) as being anticipated by Schairer (USP 6,301,035) (Office Action, p. 2, lines 14-15).

A. Independent claims 16 and 30

Schairer does not form the basis for a valid rejection of either claim 16 or 30 under § 102(e) because Schairer does not disclose all of the limitations of claims 16 and 30. Specifically, Schairer does not disclose a primary lens element separated by a distance from a secondary lens element. Claim 16 recites, "a primary lens element . . . and a secondary lens unit separated by a distance from said primary lens element." Claim 30 recites, "a primary lens element . . . and a secondary lens element separated by a distance from said primary lens element."

The Examiner states, with regard to claims 16 and 30, that Schairer discloses:

"a primary lens element 2A (col. 3, line 7) providing an optical path, said primary lens element 2A and said transceiver/infrared emitting/infrared detection device stack S cooperatively located such that said transceiver/infrared emitting/infrared detection device stack is aligned with said optical path and a secondary lens unit 2A' (col. 4, lines 33-35) separated by a distance from primary lens element (see Figure 2) and aligned along said single optical path, the primary lens 2A located between the secondary lens 2A' and the at least one infrared emitting device 10, the secondary lens unit 2A causing a ray to be refracted such

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that the angle of the ray with respect to the secondary lens is modified by passing through the lens (see Fig. 2)" (Office Action, p. 3, lines 7-15).

Schairer does not disclose a transceiver system with two lens elements separated by a distance from one another. The Examiner points to lens segment 2A of figure 1 of Schairer as disclosing a primary lens element. Then the Examiner points to lens segment 2A' of figure 2 of Schairer as disclosing a secondary lens unit. Schairer, however, does not disclose a transceiver system with both lens segments 2A and 2A'. Lens segment 2A is part of the embodiment of figure 1, while lens segment 2A' is part of the embodiment of figure 2. Schairer explains that figures 1 and 2 show two embodiments and that lens 2A' is part of the embodiment of figure 2:

"FIG. 2 shows a further example embodiment of a transceiver 1' including an optical assembly having a housing section 18 comprising a reflector section 13B and a lens 2A' fitted to the housing section 3 including a reflector section 13A. . . . The remaining setup of the transceiver 1', in particular the arrangement of the integrated circuit 6, the detector chip 8, the emitter chip 10 and the lens 2A' is the same as shown in FIG. 1. Further details of FIG. 2 will be described below.

No embodiment of Schairer includes two lens elements separated by a distance from one another. Because Schairer does not disclose all of the elements of either claim 16 or claim 30, reconsideration of the § 102(e) rejection and allowance of claims 16 and 30 are requested.

B. Dependent claims 17 and 31-38

Claim 17 depends from claim 16 and is allowable for at least the same reasons for which claim 16 is allowable. Reconsideration of the § 102(e) rejection and allowance of claim 17 are requested.

Claims 31-38 depend directly or indirectly from claim 30 and are allowable for at least the same reasons for which claim 30 is allowable. Reconsideration of the § 102(e) rejection and allowance of claims 31-38 are requested.

C. Independent claims 19 and 21

Both claims 19 and 21 recite an arrangement of optical transmitting and receiving devices located on two sides of a circuit structure or support element. Schairer does not form the basis for a valid rejection of claims 19 or 21 under § 102(e) because Schairer does not disclose all of the limitations of claims 19 and 21. Specifically, Schairer does not disclose a transceiver circuit on one side of a support element and an emitting device on the other side of the support element.

Claim 19 recites a transceiver circuit located on a first side of a circuit structure and an infrared emitting device located on a second side of the circuit structure. Claim 19 recites, “an infrared transceiver assembly comprising a circuit structure defining a first side and a second side, . . . said transceiver circuit device being located on said first side; . . . said infrared emitting device located on said second side” (emphasis added).

Regarding claim 19, the Examiner does not even state that Schairer discloses “an infrared emitting device located on said second side”. The Examiner simply states that Schairer discloses “passing said signals through said transceiver circuit device 6 and to said infrared emitting device 10;” (Office Action, p. 4, lines 6-7). Thus, the Examiner has failed to state a *prima facie* case of anticipation. In any event, Schairer does not disclose that the “infrared emitting device 10” and the “infrared detection device 8” are on first and second sides of the “circuit structure 5”. Figure 1 of Schairer shows that the “infrared emitting device 10” and the “infrared detection device 8” are on the same side of “circuit structure 5”.

Perhaps the Examiner is arguing that claim 19 recites that the first side of the circuit structure includes the second side of the circuit structure. The Examiner does write “Schairer discloses . . . a circuit structure 5 (col. 2, line 33 defining a first side (e.g., first side includes and a second side, a transceiver circuit device, at least one infrared emitting device 10 and at least one infrared

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detection device 8 . . .” (Office Action, p. 3, line 19 – p. 4, line 2). Claim 19, however, does not recite that the first side of the circuit structure includes the second side of the circuit structure. In claim 19, “a first side” and “a second side” are distinct claim elements. It is improper for the Examiner to interpret distinct claim elements to be synonymous.

Claim 21 recites an optical transmission device mounted on a first side of a support element and a transceiver device mounted on a second side of the support element. Claim 21 recites, “the optical receiving device and the optical transmission device mounted to a first side of the support element; . . . the transceiver device mounted on a second side of the support element, the second side in opposition to the first side” (emphasis added).

Regarding claim 21, the Examiner does not state that Schairer discloses an optical transmission device mounted to a first side of a support element and a transceiver device mounted on a second side of the same support element. Instead, the Examiner states that the housing 17 of figure 1 of Schairer is “equivalent” to the first side, and the housing 3 of figure 1 of Schairer is “equivalent” to the second side. (Office Action, p. 5, lines 1-7) Thus, the Examiner has failed even to state a *prima facie* case of anticipation. With regard to claim 21, the Examiner has not stated which element of Schairer discloses a “support element”. The Examiner has not identified a “support element” in Schairer to which a transmission device is mounted to the support element’s first side and to which a transceiver device is mounted to the support element’s second side.

The housing 17 and the housing 3 in Schairer are not two sides of the same element; they are separate elements. Schairer explains, “FIGS. 1 and 2 show an infrared transceiver 1 including . . . a housing 3 made of, for example, a thermoplastic or thermosetting material and transparent for IR beams.” (Schairer, col. 2, lines 28-30) “FIG. 1 shows the transceiver 1 including a separate reflector housing 17 forming a reflector 13 . . .” (Schairer, col. 2, lines 61-62) (emphasis added). “The reflector housing 17 is simply fitted over the

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housing 3 of the transceiver 1, whereby the two housings or housing sections are mounted to each other.” (Schairer, col. 3, lines 1-3) (emphasis added). Because housing 17 and housing 3 are distinct elements, housing 17 and housing 3 cannot be two sides of the same support element.

Moreover, the Examiner argues with respect to claims 20 and 22 that the support element is a printed circuit board. Claim 20 depends from claim 19, and claim 22 depends from claim 21. The support element cannot a printed circuit board for purposes of a dependent claim and a housing 17 or 3 for purposes of the base claim.

Because Schairer does not disclose a transceiver circuit on one side of a support element and an emitting device on the other side of the same support element, reconsideration of the § 103(a) rejection and allowance of claims 19 and 21 are requested.

D. Dependent claims 20 and 22

Claims 20 and 22 both recite a printed circuit board. Schairer does not disclose a printed circuit board. The Examiner attempts to establish that Schairer discloses a printed circuit board by stating only “see Figures 1 and 2” (Office Action, p. 5, lines 8-9). But neither figure 1 nor figure 2 discloses a printed circuit board.

Claim 20 depends from claim 19. In addition to the reason explained above, claim 20 is allowable for at least the same reasons for which claim 19 is allowable. Claim 22 depends from claim 21. In addition to the reason explained above, claim 22 is allowable for at least the same reasons for which claim 21 is allowable. Reconsideration and allowance of claims 20 and 22 are requested.

E. Dependent claims 23-29


Claims 23-29 depend directly or indirectly from claim 21 and are allowable for at least the same reasons for which claim 21 is allowable. Reconsideration and allowance of claims 23-29 are requested.

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II. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that the entire application (claims 16-17 and 19-38 are pending) is in condition for allowance. Applicants respectfully request that a timely Notice of Allowance be issued in this case. If the Examiner would like to discuss any aspect of this application, the Examiner is requested to contact the undersigned at (925) 621-2121.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By 
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Respectfully submitted,



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